AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of the claims and any prior listing of the claims in the present application.

Claim 1 (Original): A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element into a die having a second positioning element, the first positioning element engaging the second positioning element to hold the rotor core in a fixed position with respect to the die;

filling slits in the rotor core with resinous magnet; and

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field.

Claim 2 (Original): A rotor core produced in accordance with the method of Claim 1.

Claim 3 (Original): The method as defined in Claim 1, wherein the first positioning element is formed on an outside circumference of the rotor core, and wherein the second positioning element is formed on an inside circumference of the die, the method further comprising positioning the rotor core in the die with the first positioning element aligned with the second positioning element.

Claim 4 (Original): The method as defined in Claim 3, wherein the first positioning element comprises at least one recess in the outer circumference of the rotor core, and wherein the second positioning element comprises at least one projection on the inner circumference of the die.

Claim 5 (Original): The method as defined in Claim 4, wherein the first positioning element comprises a plurality of recesses in the outer circumference of the rotor core, and wherein the second positioning element comprises a plurality of projections on the inner surface of the die.

Claim 6 (Currently Amended): ~~The method as defined in Claim 3, wherein the die comprises~~ A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element into a die having a second positioning element, the first positioning element engaging the second positioning element to hold the rotor core in a fixed position with respect to the die, the first positioning element formed on an outside circumference of the rotor core, the second positioning element formed on an inside circumference of the die, the rotor core being positioned in the die with the first positioning element aligned with the second positioning element, the die further comprising at least one ejector pin that abuts a face of the rotor core when the rotor core is positioned in the die; ~~, the method further comprising~~

filling slits in the rotor core with resinous magnet;

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field; and

pushing on the at least one ejector pin to force the rotor core out of the die when the resinous magnet in the slits has hardened.

Claim 7 (Original): A rotor core produced in accordance with the method of Claim 3.

Claim 8 (Original): The method as defined in Claim 1, wherein the first positioning element is formed on at least one face of the rotor core, and wherein the second positioning element is formed on at least one surface of the die, the method further comprising positioning the rotor core in the die with the at least one face of the rotor core abutting the at least one surface of the die and with the first positioning element aligned with the second positioning element.

Claim 9 (Original): The method as defined in Claim 8, wherein the first positioning element comprises a recess in the at least one face of the rotor core, and wherein the second positioning

element comprises a projection on the at least one surface of the die, the method comprising positioning the rotor core in the die with the recess aligned to receive the projection.

Claim 10 (Currently Amended): ~~The method as defined in Claim 8, wherein the die comprises~~ A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element into a die having a second positioning element, the first positioning element engaging the second positioning element to hold the rotor core in a fixed position with respect to the die, the first positioning element comprising a recess in the at least one face of the rotor core, the second positioning element comprising a projection on the at least one surface of the die, the rotor core being positioned in the die with the recess aligned to receive the projection, the die further comprising at least one ejector pin that abuts a face of the rotor core when the rotor core is positioned in the die; ~~, the method further comprising~~

filling slits in the rotor core with resinous magnet;

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field; and

pushing on the at least one ejector pin to force the rotor core out of the die when the resinous magnet in the slits has hardened.

Claim 11 (Original): A rotor core produced in accordance with the method of Claim 8.

Claim 12 (Original): The method as defined in Claim 1, wherein the rotor core includes a shaft hole having a keying portion, and wherein the die includes an alignment pin having a keying portion that engages the keying portion of the shaft hole, the method comprising inserting the rotor core into the die with the keying portion of the shaft hole aligned with the keying portion of the alignment pin.

Claim 13 (Currently Amended): ~~The method as defined in Claim 12, wherein the die comprises~~ A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element comprising a shaft hole having a keying portion into a die having a second positioning element comprising an alignment pin having a keying portion that engages keying portion of the shaft hole, the rotor core being inserted into the die with the keying portion of the shaft hole aligned with the keying portion of the alignment pin such that the first positioning element engages the second positioning element to hold the rotor core in a fixed position with respect to the die, the die further comprising at least one ejector pin that abuts a face of the rotor core when the rotor core is positioned in the die; ~~, the method further comprising~~

filling slits in the rotor core with resinous magnet;

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field; and

pushing on the at least one ejector pin to force the rotor core out of the die when the resinous magnet in the slits has hardened.

Claim 14 (Currently Amended): A rotor core produced in accordance with the method of Claim ~~1~~ 12.

Claim 15 (Original): The method as defined in Claim 1, wherein the rotor core includes a shaft having the first positioning element formed thereon, and wherein the die includes a hole that receives the shaft, a portion of the hole forming the second positioning element, the method comprising positioning the rotor core in the die with the first positioning element on the shaft aligned with the second positioning element portion of the hole.

Claim 16 (Original): The method as defined in Claim 15, wherein the shaft has an outer circumference and the first positioning element is a rib on the outer circumference of the shaft,

the rib being in parallel with an axis of the shaft, and wherein the hole has an inner circumference and the second positioning element is a groove formed in the inner circumference of the hole and aligned with the rib when the shaft is positioned in the hole.

Claim 17 (Currently Amended): ~~The method as defined in Claim 15, wherein the die comprises~~ A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element into a die having a second positioning element, the first positioning element engaging the second positioning element to hold the rotor core in a fixed position with respect to the die, the rotor core including a shaft having the first positioning element formed thereon, the die including a hole that receives the shaft, a portion of the hole forming the second positioning element, the rotor core being positioned in the die with the first positioning element on the shaft aligned with the second positioning element portion of the hole, the die also having at least one ejector pin that abuts a face of the rotor core when the rotor core is positioned in the die; ~~, the method further comprising~~

filling slits in the rotor core with resinous magnet;

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field; and

pushing on the at least one ejector pin to force the rotor core out of the die when the resinous magnet in the slits has hardened.

Claim 18 (Original): A rotor core produced in accordance with the method of Claim 15.

Claim 19 (Currently Amended): The method as defined in Claim 1, wherein the first positioning element comprises at least one of the slits of the rotor core, and wherein the second positioning element comprises at least one pin in the die, the at least one pin moveable in a direction aligned with an axis of the at least one pin, the method comprising positioning the rotor

core in the die with the at least one of the slits aligned with the at least one pin, the at least one pin entering the slit to preclude movement of the rotor core in any direction other than the direction aligned with the axis of the at least one pin, the method further comprising extracting the pin from the slit as the slit is filled with the resinous magnet.

Claim 20 (Currently Amended): ~~The method as defined in Claim 19, further comprising~~ A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element into a die having a second positioning element, the first positioning element engaging the second positioning element to hold the rotor core in a fixed position with respect to the die, the first positioning element comprising at least one of the slits of the rotor core, the second positioning element comprising at least one pin in the die, the at least one pin moveable in a direction aligned with an axis of the at least one pin, the rotor core being positioned in the die with the at least one of the slits aligned with the at least one pin, the at least one pin entering the slit to preclude movement of the rotor core in any direction other than the direction aligned with the axis of the at least one pin;

filling slits in the rotor core with resinous magnet;

extracting the pin from the slit as the slit is filled with the resinous magnet;

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field; and

using the at least one pin to push the rotor core out of the die when the resinous magnet has hardened.

Claim 21 (Original): A rotor core produced in accordance with the method of Claim 19.

Claim 22 (Original): The method as defined in Claim 1, wherein each slit has a respective first end and a respective second end, and the die has a plurality of permanent magnets having poles,

the method comprising positioning the rotor core in the die with the first ends and the second ends of the slits aligned with the poles of the permanent magnets.

Claim 23 (Original): A rotor core produced in accordance with the method of Claim 22.

Claim 24 (Currently Amended): ~~The method as defined in Claim 1, wherein~~ A method for embedding magnets in a rotor core, comprising:

positioning a rotor core having a first positioning element into a die having a second positioning element, the first positioning element engaging the second positioning element to hold the rotor core in a fixed position with respect to the die, the die ~~comprises~~ also having at least one ejector pin that abuts a face of the rotor core when the rotor core is positioned in the die; ~~, the method further comprising~~

filling slits in the rotor core with resinous magnet;

applying a magnetic field to the resinous magnet in each slit to establish a magnetic orientation for the resinous magnet in each slit, the first positioning element and the second positioning element preventing the rotor core from moving under the influence of the magnetic field; and

pushing on the at least one ejector pin to force the rotor core out of the die when the resinous magnet in the slits has hardened.

Claim 25 (Original): A rotor core produced in accordance with the method of Claim 24.

Claims 26-35 (Previously Withdrawn)